



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/568,218

08/26/2008

Massimiliano Pavan

09877.0372

6264

22852

7590

12/23/2009

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
LLP

901 NEW YORK AVENUE, NW  
WASHINGTON, DC 20001-4413

EXAMINER

BLEVINS, JERRY M

ART UNIT

PAPER NUMBER

2883

MAIL DATE

DELIVERY MODE

12/23/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/568,218	<b>Applicant(s)</b> PAVAN ET AL.	
	<b>Examiner</b> JERRY BLEVINS	<b>Art Unit</b> 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 35-68 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 35-38, 43 and 45-52 is/are rejected.
- 7) ☒ Claim(s) 39-42, 44 and 53-68 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/14/06, 10/23/08</u> .                                       | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 35-38, 43, 45, and 47-52 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,278,825 to Casiraghi et al.**

Regarding claims 35 and 36, Casiraghi teaches an optical cable (Figure 1) comprising a tubular element (4) of polymeric material and a transmission element (5) housed within the tubular element, the polymeric material made from a polymeric composition comprising (a) an olefin polymer (column 4, lines 24-49), (b) an inorganic filler (column 3, line 65 – column 4, line 11), and (c) an olefin polymer including a functional group, wherein (c) is present in the composition in an amount of about 5 to about 8 parts by weight with respect to 100 parts by weight of (a) (column 5, lines 32-58).

Regarding claim 37, Casiraghi teaches that the tubular element is a buffer tube housing the transmission element (Figure 1).

Regarding claim 38, Casiraghi teaches that the buffer tube is defined by a peripheral wall having a thickness lower than about 0.5 mm (column 4, lines 50-55).

Regarding claim 43, Casiraghi teaches that the polymeric material has an elongation at break lower than about 100% (column 7, lines 66 and 67).

Art Unit: 2883

Regarding claim 45, Casiraghi teaches that (a) is selected from semi-crystalline or crystalline alpha-olefin polymers including homopolymers, copolymers, terpolymers, or mixtures thereof, containing one or more monomeric units (column 4, lines 24-49).

Regarding claim 47, Casiraghi teaches that (a) is selected from LDPE, HDPE, LLDPE, ULDPE, polypropylene, isotactic polypropylene, high and low density poly-1-butene, poly-4-methyl-1-pentene, ultra-low-molecular weight polyethylene, ethylene-based ionomers, poly-4-methyl-1-pentene, ethylene propylene copolymers, EPDM, copolymers of ethylene and/or propylene with other copolymerizable monomers, ethylene-1-butylene copolymers, ethylene-vinyl acrylate copolymers, ethylene-methyl acrylate copolymers, ethylene-butyl acrylate copolymers, ethylene-ethyl acetate copolymers, ethylene-vinyl acetate copolymers, propylene-4-methyl-1-pentene copolymers, ethylene-vinyl alcohol copolymers, ethylene acrylic elastomers, ethylene-methyl acrylate-acrylic acid terpolymers, or mixtures thereof (column 4, lines 24-49).

Regarding claim 48, Casiraghi teaches that (b) is selected from hydroxides, hydrated oxides, salts or hydrated salts of metals, or mixtures thereof (column 3, line 65 – column 4, line 11).

Regarding claim 49, Casiraghi teaches that (b) is selected from magnesium hydroxide, aluminum hydroxide, aluminum oxide, alumina trihydrate, magnesium carbonate hydrate, magnesium carbonate, magnesium calcium carbonate hydrate, magnesium calcium carbonate, or mixtures thereof (column 3, line 65 - column 4, line 11).

Regarding claim 50, Casiraghi teaches that (b) is in the form of coated particles (column 4, lines 12-25).

Regarding claim 51, Casiraghi teaches that (b) is coated with saturated or unsaturated fatty acids containing from 8 to 24 carbon atoms, or metal salts thereof (column 4, lines 12-25).

Regarding claim 52, Casiraghi teaches that (b) is present in the composition in an amount of about 40 to 200 parts by weight with respect to 100 parts by weight of (a) (column 4, lines 12-25).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Casiraghi in view of US 6,329,054 to Rogestedt et al.**

Regarding claim 46, Casiraghi teaches the limitations of the base claim 45. Casiraghi does not teach that the alpha-olefin polymers contain from 2 to about 20 carbon atoms. Rogestedt teaches an optical cable comprising a tubular element, wherein the tubular element comprises alpha-olefin polymers containing from 2 to about 20 carbon atoms (column 3, line 62 - column 4, line 4). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the polymeric composition of Casiraghi with polymeric composition containing alpha-olefin polymers with from 2 to about 20 carbon atoms, as taught by Rogestedt. The motivation would have been to improve processability, reduce shrinkage, increase mechanical strength, increase surface finish, and increase ESCR (column 1, lines 9-31).

*Allowable Subject Matter*

Claims 39-42, 44, and 53-68 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 39 and 40, the prior art, taken individually or in combination, fails to disclose or render obvious a peripheral wall of the buffer tube lower than about 0.2 mm.

Regarding claims 41 and 42, the prior art, taken individually or in combination, fails to disclose or render obvious a polymeric material with ultimate tensile strength lower than about 12 MPa.

Regarding claim 44, the prior art, taken individually or in combination, fails to disclose or render obvious a polymeric material with elongation at break of about 30% to about 80%.

Regarding claim 53, the prior art, taken individually or in combination, fails to disclose or render obvious that (b) is present in the composition in an amount of about 75 to about 150 parts by weight with respect to 100 parts by weight of (a).

Regarding claims 54-68, the prior art, taken individually or in combination, fails to disclose or render obvious that (c) is selected from (c<sub>1</sub>) a terpolymer of an alpha-olefin, an acrylic acid ester, and at least one of an alpha,beta-olefinically unsaturated dicarboxylic acid reagent or its derivatives, anhydrides, metal salts, imides, esters, or a glycidyl acrylate, (c<sub>2</sub>) a terpolymer of ethylene, an alpha,beta-olefinically unsaturated dicarboxylic acid anhydride, and a vinyl ester of a saturated carboxylic acid, and (c<sub>3</sub>) an olefin polymer grafted with at least one ethylenically unsaturated monomer.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JERRY BLEVINS whose telephone number is (571)272-8581. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jerry M Blevins/  
Patent Examiner, Art Unit 2883

JMB  
12/10/2009

Application/Control Number: 10/568,218  
Art Unit: 2883

Page 7